Work Order ID 104573 *104573*

July-12-13 10:25:11 AM

D2565-109
B104573

Item ID: D2565-109
Revision ID:
Item Name: Strut

Accept *N900040100*

Setup **Start** *NS1*
Stop *NS2*

Start Date: 7/12/13 **Start Qty:** 5.00 *5*
Required Date: 7/12/13 **Req'd Qty:** 5.00 *5*
Reference:

Cust Item ID:
Customer:

Run **Start** *NR1*
Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 13-07-16 **Tooling:** ______ **Date:** ______
QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Draw Nbr	Revision Nbr
D2565	Rev E

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Brake NC / Brake NC	Punch ends and deburr as per dwg NC BRAKE; **Memo** Punch as per Dwg D2565 using DT 8313	0.00 / 0.00				5			13/10/10
110 *110* Small Fab / Small Fab	Small Fab; **Memo** Deburr	0.00 / 0.00				5x			13/10/21 DAS 36 9-89
120 *120* QC / Quality Control	QC5- Inspect part completeness to step on W/O; **Memo**	0.00 / 0.00 DAS 27 9-89 13 10 31				5			

DQA: ____________ Date: ____________

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date:

Work Order update only ☐

Work Order: ____________

Part No. ____________

NCR No. ____________

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread	____________	
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Calibration	____________	
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Work Order ID 104573
July-12-13 10:25:11 AM

104573

Item ID:	D2565-109	**Accept**	*N900040100*
Revision ID:		**Setup Start**	*NS1*
Item Name:	Strut	**Stop**	*NS2*
Start Date:	7/12/13	**Start Qty:** 5.00	*5*
Required Date:	7/12/13	**Req'd Qty:** 5.00	*5*
Reference:			

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______
QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel M D6125	0.00				5	ϕ	13-11-21.	DAS 34 9-89
	Memo START TIME: 11:50 OVEN TEMPERATURE: 400° FINISH TIME: 12:20.	0.00							
140 *140* QC Quality Control	QC3- Inspect Part Finish	0.00 DAS 27 9-89				S			
	Memo	0.00 B10 81							
150 *150* Packaging Packaging	Identify as per dwg & Stock Location (3X) ST 252	0.00				5x	DAS 28 9-89	13-10-21	
	Memo 3x PPP 107578	0.00							

DQA: __________ Date: __________

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date:

Work Order update only ☐

Work Order: ____	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ____	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ____	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread		
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set		
☐ Turning Sequence	☐ Finish	☐ Out of Calibration		
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Work Order ID 104573

July-12-13 10:25:11 AM

104573

Item ID:	D2565-109	**Accept**	*N900040100*
Revision ID:		**Setup Start**	*NS1*
Item Name:	Strut	**Stop**	*NS2*
Start Date:	7/12/13	**Start Qty:** 5.00	*5*
Required Date:	7/12/13	**Req'd Qty:** 5.00	*5*
Cust Item ID:		**Customer:**	
Reference:			

Run Start *NR1* **Stop** *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160*	QC21- Final Inspection - Work Order Release	0.00							
QC Quality Control	**Memo**	0.00							

Rm 13/10/23

Rll 13-10-22

DQA: ________ Date: ________

QA Closed: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

Work Order update only ☐

	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Work Order: ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Part No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
NCR No. ________	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread		
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set		
☐ Turning Sequence	☐ Finish	☐ Out of Calibration		
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

Picklist Print

July-12-13 10:25:11 AM

Work Order ID: 104573

Parent Item: D2565-109

Parent Item Name: Strut

Start Date: 7/12/13 **Required Date:** 7/12/13

Start Qty: 5.00 **Required Qty:** 5.00

Comments: IPP: F02.04.16Added dwg Rev.C1NG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.750W.049 304 RD Tube .750 x .049W		Purchased	No			100	f	466.3989	**1.0258**	**5.3989475**	SM	13/10/10	

Location		Loc Qty	Loc Code	
MAT017		466.3988825		
	122312	13.3		
	122468	0.0000325		
	124768	56.63245		
	125068	4.5664		4.5664
	125513	9.9		2.5
	M126183	382		

DQA: ________ Date: ________

QA Closed: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

Work Order update only ☐

	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Work Order: ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Part No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
NCR No. ________	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up
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☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge	☐ Other ________
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread		________
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set		________
☐ Turning Sequence	☐ Finish	☐ Out of Calibration		________
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence		

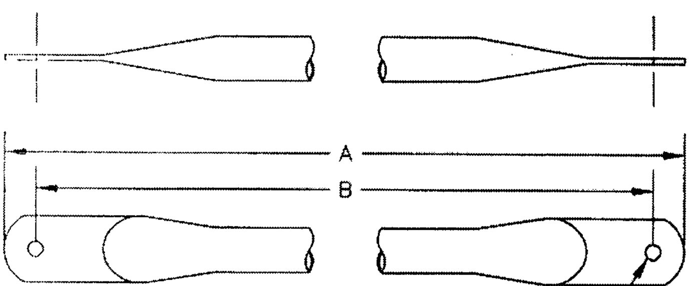
DART

QA COPY ISSUED

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2565 — REV. E — SHEET 1 OF 1
DATE 04.05.05		TITLE STRUT — SCALE 1:3

A	96.05.03	NEW ISSUE
B	97.03.15	CORRECT D2565-111 DIM. A
C	98.10.05	UPDATED MATERIAL NOTE (TSR A603)
D	02.06.05	ADD -3XX PARTS; ADD FINISH
E	04.05.05	ADD D2565-401-411; RMV ANGLE D

RELEASED 04.05.05



DIA 0.257 TO BE PUNCHED
"C" DIA TO BE OPENED MANUALLY
PUNCH ENDS PER SPEC CONTROL DRAWING D2638

PART #	A	B	DIA C
D2565-101	20.52	19.72	0.316
D2565-103	18.21	17.41	0.316
D2565-105	20.19	19.39	0.316
D2565-107	13.43	12.63	–
D2565-109	12.31	11.51	–
D2565-111	13.65	12.85	–
D2565-201	22.79	22.00	0.316
D2565-203	20.75	19.95	0.316
D2565-205	21.22	20.42	0.316
D2565-207	16.07	15.27	–
D2565-209	15.16	14.36	–
D2565-211	14.14	13.34	–
D2565-301	27.03	26.23	0.316
D2565-303	25.34	24.54	0.316
D2565-305	23.73	22.93	0.316
D2565-307	20.86	20.06	–
D2565-309	20.17	19.37	–
D2565-311	16.30	15.50	–
D2565-401	18.29	17.49	0.316
D2565-403	15.64	14.84	0.316
D2565-405	19.45	18.65	0.316
D2565-407	10.79	9.99	–
D2565-409	9.34	8.54	–
D2565-411	13.81	13.01	–

UNCONTROLLED ... SUBJECT TO ... WITHOUT ... WORK ... NO 104573 MCS 13-07-16

GENERAL NOTES

1) MATERIAL: AISI 304/316/318 SS 0.750 OD X 0.049 WALL
   (REF DART SPEC. M304TR0.750W0.049)
   ENSURE SEAMLESS TUBE IS USED
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES

DART AEROSPACE LTD

DART AEROSPACE

Description: Strut		**Work Order:** 104 573
Inspection Drawing: D2565	Rev: E	Part Number: D2565-109

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.31	+/- .030	12.31	✓		T	SA-5
11.51	+/- .030	11.51	✓		T	SA-5
Ø.257	+/- .005	Ø.257	✓		✓	SA-11

Measured by: SD	**Checked By:** [signature]	**QC inspector:** DAS 27 9-89	**Engineering Approval** (*if necessary*):
Date 13/10/10	**Date** 13/10/21	**Date** 13 10 21	**Date**